

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) An automatically engageable and releasable brake apparatus adaptable to be attached to a wheelchair, said brake apparatus comprising:

a connection mechanism adapted to be positioned on a portion of the wheelchair frame;

a seat actuation member adapted to be positioned in communication with a seat of the wheelchair, said seat actuation member comprising a first fluid cell having a first volume and including a plurality of fluid chambers in fluid communication with one another;

a brake actuating member in fluid communication with said seat actuation member defining a closed fluid system therewith, said brake actuating member being positioned within said connection mechanism, said brake actuating member comprising a second fluid cell having a second volume, wherein said first fluid cell is in fluid communication with said second fluid cell via a conduit having a third volume, and wherein said first fluid cell, said second fluid cell and said conduit define said closed fluid system; and

a brake member adapted to contact a ground surface on which the wheelchair is located, said brake member being coupled to said connection mechanism,

wherein a volume of fluid in said closed fluid system is less than a total volume of said closed fluid system, and wherein occupational ingress into the wheelchair actuates said seat actuation member to cause fluid flow from said seat actuation member to said brake actuating member, which actuates said brake actuating member and causes said brake member to move from a first position in substantial contact with the ground surface on which the wheelchair is located to a second position spaced a distance above the ground surface.

2. (Original) The brake apparatus of claim 1, wherein said brake member comprises:

a brake shaft member in communication with said brake actuating member, said brake shaft member extending from a first end thereof to an opposed second end thereof, and positioned to extend substantially downwardly from a portion of said connection mechanism proximate said first end of said brake shaft member; and

a friction member positioned proximate said second end of said brake shaft member and adapted to contact a surface on which the wheelchair is located.

3-6. (Cancelled).

7. (Currently Amended) The brake apparatus of claim [[4]] 1, further comprising a pivot member having a pivot axis and a plate member attached to said pivot member, wherein said pivot member is rotatably coupled to at least one inner surface of said connection mechanism and cooperates with said brake actuating member to move said brake member.

8. (Original) The brake apparatus of claim 7, wherein said second fluid cell is positioned within said connection mechanism between a surface of said plate member and a portion of an internal surface of said connection mechanism.

9. (Original) The brake apparatus of claim 8, wherein said brake actuating member includes a brake shaft member having a first end coupled to a portion of said pivot member, such that said plate member and said brake shaft member rotate about said pivot member in concert.

10. (Original) The brake apparatus of claim 7, further comprising at least one biasing member operatively coupled to said pivot member to bias said pivot member in a first rotation direction toward said first position.

11. (Cancelled).

12. (Currently Amended) The brake apparatus of claim [[4]] 1, wherein said second fluid cell comprises a plurality of fluid chambers in fluid communication with one another.

13. (Original) The brake apparatus of claim 12, wherein said plurality of fluid chambers of said second fluid cell are foldably stacked on one another.

14. (Currently Amended) The brake apparatus of claim [[4]] 1, wherein said conduit comprises a plurality of branch conduits and wherein said branch conduits are in fluid communication with a corresponding plurality of second fluid cells to define a closed system.

15-17. (Cancelled).

18. (Currently Amended) An automatically engageable and releasable brake apparatus adaptable to be attached to a wheelchair, said brake apparatus comprising:

a connection mechanism adapted to be attached to a portion of a frame of the wheelchair;

a seat actuation member adapted to be positioned in communication with a seat of the wheelchair, said seat actuation member comprising a first fluid cell having a first volume and including a plurality of fluid chambers in fluid communication with one another;

a brake actuating member in fluid communication with said seat actuation member and defining a closed fluid system therewith, said brake actuating member comprising a second fluid cell having a second volume, wherein said first fluid cell is in fluid communication with said second fluid cell via a conduit having a third

volume, and wherein said first fluid cell, said second fluid cell and said conduit define said closed fluid system;

a brake shaft member in communication with said brake actuating member, said brake shaft member extending from a first end thereof to an opposed second end thereof, and positioned to extend substantially downwardly from a portion of said connection mechanism proximate said first end of said shaft member; and

a friction member positioned proximate said second end of said brake shaft member and adapted to contact a surface on which the wheelchair is located;

wherein a volume of fluid in said closed fluid system is less than a total volume of said closed fluid system, and wherein occupational ingress into the wheelchair actuates said seat actuation member to cause fluid flow from said seat actuation member to said brake actuating member, which actuates said brake actuating member and causes said brake shaft member to move such that said friction member substantially contemporaneously moves from a first position in substantial contact with the surface on which the wheelchair is located to a second position spaced a distance above the surface on which the wheelchair is located.

19. (Cancelled).

20. (Original) The brake apparatus of claim 18, wherein said brake actuating member further comprises a pivot member having a pivot axis, and a plate member attached to said pivot member, wherein said pivot member is rotatably coupled to at least one inner surface of said connection mechanism and cooperates with said brake actuating member to move said brake member.

21. (Currently Amended) The brake apparatus of claim 20~~18~~, wherein said second fluid cell is positioned within said connection mechanism between a surface of said plate member and a portion of an internal surface of said connection mechanism.

22. (Original) The brake apparatus of claim 21, wherein said first end of said brake shaft member is coupled to a portion of said pivot member, such that said plate member and said brake shaft member rotate about said pivot member in concert.

23. (Original) The brake apparatus of claim 20, wherein further comprising at least one biasing member operatively coupled to said pivot member to bias said pivot member in a first rotation direction toward said first position.

24-26. (Cancelled).

27. (Currently Amended) An automatically engageable and releasable brake apparatus adaptable to be attached to a wheelchair, said brake apparatus comprising:

a seat actuation member comprising a first fluid cell having a first volume and including a plurality of fluid chambers in fluid communication with one another;

a brake actuating member in fluid communication with said seat actuation member and defining a closed fluid system therewith, said brake actuating member comprising a second fluid cell having a second volume, wherein said first fluid cell is in fluid communication with said second fluid cell via a conduit having a third volume, and wherein said first fluid cell, said second fluid cell and said conduit define said closed fluid system; and

a brake member in communication with said brake actuating member;

wherein actuation of said seat actuation member activates said brake actuating member which causes said brake member to move from a first position which prevents any significant rearward motion of the wheelchair to a second position which allows substantially unrestricted rearward motion of the wheelchair.

28-30. (Cancelled).

31. (Currently Amended) A wheelchair comprising:
- a frame;
 - a seat member incorporated into and substantially supported by said frame;
 - a wheel assembly having a plurality of first wheels rotatably connected proximate a front end of said frame, and a plurality of second wheels rotatably connected proximate a rear portion of said frame; and
 - an automatically engageable and releasable brake apparatus attached to said rear portion of said frame, said brake apparatus comprising:
 - a seat actuation member comprising a first fluid cell having a first volume and including a plurality of fluid chambers in fluid communication with one another,
 - a brake actuating member in fluid communication with said seat actuation member and defining a closed fluid system therewith, said brake actuating member comprising a second fluid cell having a second volume, wherein said first fluid cell is in fluid communication with said second fluid cell via a conduit having a third volume, and wherein said first fluid cell, said second fluid cell and said conduit define said closed fluid system, and
 - a brake member in communication with said brake actuating member;
- wherein actuation of said seat actuation member activates said brake actuating member which causes said brake member to move from a first position which prevents any significant rearward motion of said wheelchair to a second position which allows substantially unrestricted rearward motion of said wheelchair.